AMENDMENTS TO THE CLAIMS

CLAIM 1 (PREVIOUSLY PRESENTED) A cable disc brake for a bicycle comprising:

a caliper housing with a mounting bracket structured and dimensioned to be attached to a bicycle;

a first friction member movably coupled to said caliper housing between a release position and a braking position;

a second friction member coupled to said caliper housing and arranged substantially parallel to said first friction member to form a rotor receiving slot therebetween; and

an actuated mechanism movably coupled to said caliper housing to move said first friction member in an axial direction from said release position towards said second friction member to said braking position, said actuated mechanism including

an input cam movably mounted within said caliper housing to move in a rotational direction about a longitudinal axis, but not in an axial direction, said input cam having a first camming surface with an axially extending guide member non-movably fixed thereto at said longitudinal axis, and

an output cam movably mounted within said caliper housing to move in the axial direction in response to rotation of said input cam, but not in the rotational direction, said output cam having a second camming surface with an axially extending bore, said guide member being at least partially disposed within said bore to ensure smooth relative movement between said input and output cams;

wherein said input cam and said output cam move axially relative to each other without such movement being caused by one of said input cam member or said output cam member screwing through the other one of said input cam member or said output cam member.

CLAIM 2 (ORIGINAL): A cable disc brake according to claim 1, wherein said guide member is formed by a pin extending from said input cam into said bore of said output cam.

CLAIM 3 (ORIGINAL): A cable disc brake according to claim 2, wherein said pin is integrally formed with said input cam.

CLAIM 4 (ORIGINAL): A cable disc brake according to claim 2, wherein said first camming surface of said input cam has a set of first camming slots, said second camming surface of said output cam has a set of second camming slots with rolling members located between said first and second camming slots.

CLAIM 5 (ORIGINAL): A cable disc brake according to claim 4, wherein said rolling members are balls and said first and second camming slots are circumferentially extending ramp-shaped slots.

CLAIM 6 (ORIGINAL): A cable disc brake according to claim 1, wherein said actuated mechanism further includes an actuating arm operatively coupled to said input cam.

CLAIM 7 (ORIGINAL): A cable disc brake according to claim 6, wherein said actuating arm is biased to a release position by a biasing member.

CLAIM 8 (ORIGINAL): A cable disc brake according to claim 7, wherein said biasing member is a torsion spring with a first end coupled to said caliper housing a second end coupled to said actuating arm.

CLAIM 9 (ORIGINAL): A cable disc brake according to claim 8, wherein said actuated mechanism includes a return spring arranged to bias said first and second cam members together.

CLAIM 10 (ORIGINAL): A cable disc brake according to claim 9, wherein said actuating arm has a cable attachment member thereon.

CLAIM 11 (PREVIOUSLY PRESENTED): A cable disc brake for a bicycle comprising:

a caliper housing with a mounting bracket structured and dimensioned to be attached to a bicycle;

a first friction member movably coupled to said caliper housing between a release position and a braking position;

a second friction member coupled to said caliper housing and arranged substantially parallel to said first friction member to form a rotor receiving slot therebetween; and

an actuated mechanism movably coupled to said caliper housing to move said first friction member from said release position towards said second friction member to said braking position, said actuated mechanism having first and second cam members movably arranged between an axially retracted position and an axially extended position with a guide member interconnecting said first and second cam members during movement between said axially retracted position and said axially extended position, said guide member being non-movable in the axial direction relative to said caliper housing,

said first cam member being rotatably mounted within said caliper housing, but non-movably mounted in the axial direction, and said second cam member being movably mounted in the axial direction but non-rotatably mounted;

wherein said input cam and said output cam move axially relative to each other without such movement being caused by one of said input cam member or said output cam member screwing through the other one of said input cam member or said output cam member.

CLAIM 12 (ORIGINAL): A cable disc brake according to claim 11, wherein said guide member is formed by a pin extending from one of said first and second cam members into a bore of the other of said first and second cam members.

CLAIM 13 (ORIGINAL): A cable disc brake according to claim 12, wherein said pin is located along an axis of rotation of said first and second cam members.

CLAIM 14 (ORIGINAL): A cable disc brake according to claim 13, wherein said actuated mechanism further includes an actuating arm coupled to said first cam member.

CLAIM 15 (ORIGINAL): A cable disc brake according to claim 14, wherein said actuating arm is biased to a release position by a biasing member.

CLAIM 16 (ORIGINAL): A cable disc brake according to claim 15, wherein said biasing member is a torsion spring with a first end coupled to said caliper housing a second end coupled to said actuating arm.

CLAIM 17 (ORIGINAL): A cable disc brake according to claim 16, wherein said actuated mechanism includes a return spring arranged to bias said first and second cam members together.

CLAIM 18 (ORIGINAL): A cable disc brake according to claim 17, wherein said actuating arm has a cable attachment member thereon.

CLAIM 19 (ORIGINAL): A cable disc brake according to claim 11, wherein said first cam member has a set of first camming surfaces, said second cam member has a set of second camming surfaces with rolling members located between said first and second camming surfaces.

CLAIM 20 (ORIGINAL): A cable disc brake according to claim 19, wherein said rolling members are balls and said first and second camming surfaces include ramp-shaped slots.

CLAIM 21 (ORIGINAL): A cable disc brake according to claim 1, wherein said input cam includes a first cam member disposed within an internal bore of said caliper housing.

CLAIM 22 (ORIGINAL): A cable disc brake according to claim 21, wherein said input cam further includes an operating shaft that extends axially from said first cam member, and said operating shaft is operatively coupled to an actuating arm.

CLAIM 23 (ORIGINAL): A cable disc brake according to claim 22, wherein said operating shaft at least partially extends outwardly from said caliper housing, and said actuating arm is disposed on an opposite side of said caliper housing from said internal bore of said caliper housing.

CLAIM 24 (ORIGINAL): A cable disc brake according to claim 22, wherein said input cam further includes a bushing mounted on said operating shaft of said input cam.

CLAIM 25 (ORIGINAL): A cable disc brake according to claim 24, wherein said bushing includes a cylindrical portion at least partially surrounding said operating shaft and a flange portion extending from said cylindrical portion, and said flange portion is located axially between a portion of said input cam and said caliper housing within said internal bore of said caliper housing.

CLAIM 26 (ORIGINAL): A cable disc brake according to claim 21, wherein said output cam includes a second cam member with a non-circular thrust shaft extending axially therefrom, and said thrust shaft is received in a non-circular hole of a rotation stopper.

CLAIM 27 (ORIGINAL): A cable disc brake according to claim 26, wherein said rotation stopper includes a radially extending tab that is received in an axial slot of said caliper housing to prevent rotation of said rotation stopper.

CLAIM 28 (ORIGINAL): A cable disc brake according to claim 27, wherein said rotation stopper is secured on said thrust shaft of said output cam by a retainer.

CLAIM 29 (ORIGINAL): A cable disc brake according to claim 28, wherein said retainer is a c-shaped snap ring that is received in an annular groove of said internal bore of said caliper housing.

CLAIM 30 (ORIGINAL): A cable disc brake according to claim 26, wherein said actuated mechanism includes a return spring disposed between said rotation stopper and a portion of said output cam.

CLAIM 31 (ORIGINAL): A cable disc brake according to claim 16, wherein said torsion spring is adjustably coupled to said caliper housing and said actuating arm to adjust the biasing force of said torsion spring.

CLAIM 32 (ORIGINAL): A cable disc brake according to claim 22, wherein said actuated mechanism includes a cover disposed between said actuating arm and said caliper housing to seal said internal bore of said caliper housing.

CLAIM 33 (ORIGINAL): A cable disc brake according to claim 32, wherein said actuating arm is biased to a release position by a biasing member arranged between said cover and said caliper housing.

CLAIM 34 (ORIGINAL): A cable disc brake according to claim 17, wherein said return spring is a separate member from said biasing member.

CLAIM 35 (ORIGINAL): A cable disc brake according to claim 34, wherein said return spring is located axially on an opposite side of said input and output cams from said biasing member.

CLAIM 36 (ORIGINAL): A cable disc brake according to claim 1, wherein said axially extending bore of said output cam is a blind bore.

37. (CURRENTLY AMENDED): A cable disc brake for a bicycle comprising:

a caliper housing with a mounting bracket structured and dimensioned to be attached to a bicycle and with a cable support having an opening for guiding a cable therethrough;

wherein the cable support extends from a surface of the caliper housing and is not adjustable relative to the surface of the caliper housing;

a first friction member coupled to the caliper housing for movement between a release position and a braking position;

a second friction member coupled to the caliper housing and arranged substantially parallel to the first friction member to form a rotor receiving slot therebetween; and

an actuated mechanism movably coupled to the caliper housing to move the first friction member in an axial direction from the release position towards the second friction member to the braking position;

wherein the actuated mechanism comprises an elongated actuating arm rotatably coupled to the caliper housing to cause the actuated mechanism to move the first friction member from the release position towards the braking position;

wherein the actuating arm has a curved guide surface with a first portion coincident with a cable clamp and a second portion that extends from the first portion towards the cable support so that the cable, when coupled to the cable clamp, approaches the guide surface from the opening in the cable support essentially tangent to the guide surface and is supported by the guide surface when the first friction member is in the release position;

a biasing mechanism that applies a biasing force between the caliper housing and the actuating arm; and

an adjusting mechanism that adjusts the biasing force applied between the caliper housing and the actuating arm in addition to changes of biasing force caused by rotation of the actuating arm relative to the caliper housing.

38. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 37 wherein the second portion of the guide surface is formed by a projection that forms a circumferentially elongated protuberance that points in a rotational direction of the actuating arm towards the cable support where the cable passes through the cable support such that the cable is supported on and by the protuberance.

39. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 38 wherein the projection has a radially outer portion that extends towards the cable support and a radially inner portion that extends away from the cable support back towards a side surface of the actuating arm.

40. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 39 wherein the projection is disposed in close proximity to a radially outermost portion of the actuating arm.

41. (CANCELED).

42. (CURRENTLY AMENDED): A cable disc brake according to claim 37 wherein the biasing mechanism comprises a spring.

43. (CANCELED).

44. (CURRENTLY AMENDED): A cable disc brake according to claim 37 wherein the biasing mechanism comprising a spring having a first end and a second end, and wherein the adjusting mechanism adjusts the biasing force by moving one of the first end and the second end relative to the other one of the first end and the second end.

45. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 44 wherein the first end of the spring is coupled relative to the caliper housing at a first position, and wherein the adjusting mechanism adjusts the biasing force by coupling the first end of the spring relative to the caliper housing at a second position different from the first position.

46. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 44 wherein the second end of the spring is coupled relative to the actuating arm at a first position, and wherein the adjusting mechanism adjusts the biasing force by coupling the second end of the spring relative to the actuating arm at a second position different from the first position.

47. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 37 further comprising a cable adjusting bolt fitted within the opening in the cable support through which the cable passes.

48. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 37 wherein the caliper housing includes a mounting flange for mounting the caliper housing to the bicycle, and wherein the mounting flange includes a slot that allows adjustment of the caliper housing to and from the rotor such that the caliper housing is axially fixed relative to the rotor during operation of the actuating arm.

49. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 37 wherein the actuating arm rotates around a rotational axis, wherein the caliper housing includes a mounting flange for mounting the caliper housing to the bicycle, and wherein the mounting flange includes an opening for receiving a mounting bolt therethrough substantially perpendicular to the rotational axis.

50. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 37 wherein the actuating arm rotates around a rotational axis, and wherein the caliper housing includes:

a first mounting flange with a first opening for mounting the caliper housing to the bicycle;

a second mounting flange with a second opening for mounting the caliper housing to the bicycle;

wherein the first opening is disposed above the rotational axis; and

wherein the second opening is disposed below the rotational axis.

51. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 50 wherein the caliper housing is structured such that, when the caliper housing is mounted to a front fork of the bicycle, the cable support is disposed above the rotational axis.

52. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 51 wherein the caliper housing is structured such that, when the caliper housing is mounted to the front fork of the bicycle, the guide surface is disposed rearwardly of the rotational axis.

53. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 52 wherein the caliper housing is structured such that, when the caliper housing is mounted to the front fork of the bicycle, the cable support extends rearwardly of the rotational axis.

54. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 37 wherein the cable, when coupled to the cable clamp, approaches the guide surface from the opening in the cable support essentially in a straight line.

55. (PREVIOUSLY PRESENTED): A cable disk brake according to claim 37 further comprising a torsion spring that applies a torsion force to the actuating arm relative to the caliper housing to bias the actuating arm to a brake releasing position.

56. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 55 wherein the torsion spring has an end coupled to the actuating arm.

57. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 55 wherein the torsion spring is adjustably coupled to the caliper housing.

58. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 55 wherein the torsion spring has a first end adjustably coupled to the caliper housing and a second end fixed relative to the actuating arm.

59 (PREVIOUSLY PRESENTED): A cable disc brake according to claim 58 wherein the second end of the torsion spring is directly connected to the actuating arm.

60. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 58 wherein the caliper housing has a plurality of openings so that the first end of the torsion spring is selectively inserted into one of the plurality of openings to adjust the first end relative to the caliper housing.

61. (PREVIOUSLY PRESENTED): A cable disc brake for a bicycle comprising:

a caliper housing with a mounting bracket structured and dimensioned to be attached to a bicycle;

a first friction member movably coupled to said caliper housing between a release position and a braking position;

a second friction member coupled to said caliper housing and arranged substantially parallel to said first friction member to form a rotor receiving slot therebetween;

an actuated mechanism movably coupled to said caliper housing to move said first friction member in an axial direction from said release position towards said second friction member to said braking position, said actuated mechanism including:

an input cam movably mounted within said caliper housing to move in a rotational direction about a longitudinal axis, but not in an axial direction, said input cam having a first camming surface with an axially extending guide member non-movably fixed thereto at said longitudinal axis, and

an output cam movably mounted within said caliper housing to move in the axial direction in response to rotation of said input cam, but not in the rotational direction, said output cam having a second camming surface with an axially extending bore, said guide member being at least partially disposed within said bore to ensure smooth relative movement between said input and output cams; and

a cable adjusting bolt coupled to said caliper housing and structured to terminate an outer casing of a brake cable and including an opening through which an inner wire of said brake cable passes.

62. (CANCELED).

63. (PREVIOUSLY PRESENTED): A cable disc brake for a bicycle comprising:

a caliper housing with a mounting bracket structured and dimensioned to be attached to a bicycle;

a first friction member movably coupled to said caliper housing between a release position and a braking position;

a second friction member coupled to said caliper housing and arranged substantially parallel to said first friction member to form a rotor receiving slot therebetween; and

an actuated mechanism movably coupled to said caliper housing to move said first friction member in an axial direction from said release position towards said second friction member to said braking position, said actuated mechanism including:

an input cam movably mounted within said caliper housing to move in a rotational direction about a longitudinal axis, but not in an axial direction, said input cam having a first camming surface with an axially extending guide member non-movably fixed thereto at said longitudinal axis, and

an output cam movably mounted within said caliper housing to move in the axial direction in response to rotation of said input cam, but not in the rotational direction, said output cam having a second camming surface with an axially extending bore, said guide member being at least partially disposed within said bore to ensure smooth relative movement between said input and output cams;

wherein a space between said first camming surface and said second camming surface increases or decreases during operation of said actuated mechanism.

64. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 1 wherein a force between said input cam and said output cam that causes said output cam to move axially from operation of said first camming surface and said second camming surface is disposed radially outwardly from said bore.

65. (PREVIOUSLY PRESENTED): A cable disc brake for a bicycle comprising:

a caliper housing with a mounting bracket structured and dimensioned to be attached to a bicycle;

a first friction member movably coupled to said caliper housing between a release position and a braking position;

a second friction member coupled to said caliper housing and arranged substantially parallel to said first friction member to form a rotor receiving slot therebetween; and

an actuated mechanism movably coupled to said caliper housing to move said first friction member in an axial direction from said release position towards said second friction member to said braking position, said actuated mechanism including:

an input cam movably mounted within said caliper housing to move in a rotational direction about a longitudinal axis, but not in an axial direction, said input cam having a first camming surface with an axially extending guide member non-movably fixed thereto at said longitudinal axis,

an output cam movably mounted within said caliper housing to move in the axial direction in response to rotation of said input cam, but not in the rotational direction, said output cam having a second camming surface with an axially extending bore, said guide member being at least partially disposed within said bore to ensure smooth relative movement between said input and output cams; and

a cable adjusting bolt coupled to said caliper housing and structured to terminate an outer casing of a brake cable and including an opening through which an inner wire of said brake cable passes.

66. (CANCELED).

67. (PREVIOUSLY PRESENTED): A cable disc brake for a bicycle comprising:

a caliper housing with a mounting bracket structured and dimensioned to be attached to a bicycle;

a first friction member movably coupled to said caliper housing between a release position and a braking position;

a second friction member coupled to said caliper housing and arranged substantially parallel to said first friction member to form a rotor receiving slot therebetween; and

an actuated mechanism movably coupled to said caliper housing to move said first friction member from said release position towards said second friction member to said braking position, said actuated mechanism having first and second cam members movably arranged between an axially retracted position and an axially extended position with a guide member interconnecting said first and second cam members during movement between said axially retracted position and said

axially extended position, said guide member being non-movable in the axial direction relative to said caliper housing,

said first cam member being rotatably mounted within said caliper housing, but non-movably mounted in the axial direction, and said second cam member being movably mounted in the axial direction but non-rotatably mounted;

wherein said first cam member has a first camming surface, wherein said second cam member has a second camming surface, and wherein a space between said first camming surface and said second camming surface increases or decreases during operation of said actuated mechanism.

68. (PREVIOUSLY PRESENTED): A cable disc brake according to claim 11 wherein a force between said input cam and said output cam that causes said output cam to move axially from operation of said first camming surface and said second camming surface is disposed radially outwardly from said bore.

69 (PREVIOUSLY PRESENTED): A cable disk brake according to claim 37 wherein the cable support is one piece with the surface of the caliper housing from which it extends.

70 (PREVIOUSLY PRESENTED): A cable disk brake according to claim 69 wherein the cable support comprises an elongated member.

71. (PREVIOUSLY PRESENTED): A cable disk brake according to claim 70 wherein the elongated member forms the opening such that the opening for guiding the cable is immovable relative to the surface of the caliper housing.

72. (CANCELED).

73. (PREVIOUSLY PRESENTED): A cable disc brake for a bicycle comprising:

a caliper housing with a mounting bracket structured and dimensioned to be attached to a bicycle and with a cable support having an opening for guiding a cable therethrough;

wherein the cable support extends from a surface of the caliper housing and is not removable relative to the surface of the caliper housing;

a first friction member coupled to the caliper housing for movement between a release position and a braking position;

a second friction member coupled to the caliper housing and arranged substantially parallel to the first friction member to form a rotor receiving slot therebetween; and

an actuated mechanism movably coupled to the caliper housing to move the first friction member in an axial direction from the release position towards the second friction member to the braking position;

wherein the actuated mechanism comprises an elongated actuating arm rotatably coupled to the caliper housing to cause the actuated mechanism to move the first friction member from the release position towards the braking position;

wherein the actuating arm has a curved guide surface with a first portion coincident with a cable clamp and a second portion that extends from the first portion towards the cable support so that the cable, when coupled to the cable clamp, approaches the guide surface from the opening in the cable support essentially tangent to the guide surface and is supported by the guide surface when the first friction member is in the release position.

74. (PREVIOUSLY PRESENTED): A cable disc brake for a bicycle comprising:

a caliper housing with a mounting bracket structured and dimensioned to be attached to a bicycle and with a cable support having an opening for guiding a cable therethrough;

wherein the cable support extends from a surface of the caliper housing and is not adjustable relative to the surface of the caliper housing;

wherein the cable support is one piece with the surface of the caliper housing from which it extends;

a first friction member coupled to the caliper housing for movement between a release position and a braking position;

a second friction member coupled to the caliper housing and arranged substantially parallel to the first friction member to form a rotor receiving slot therebetween; and

an actuated mechanism movably coupled to the caliper housing to move the first friction member in an axial direction from the release position towards the second friction member to the braking position;

wherein the actuated mechanism comprises an elongated actuating arm rotatably coupled to the caliper housing to cause the actuated mechanism to move the first friction member from the release position towards the braking position;

wherein the actuating arm has a curved guide surface with a first portion coincident with a cable clamp and a second portion that extends from the first portion towards the cable support so that the cable, when coupled to the cable clamp, approaches the guide surface from the opening in the cable support essentially tangent to the guide surface and is supported by the guide surface when the first friction member is in the release position.